```
SEQUENCE LISTING
    THADA NARSON, JON B.
<120> FISH SERINE PROTEINASES AND THEIR PHARMACEUTICAL AND COSMETIC USE
<130> 081691-0264178
<140> 09/411,688
<141> 1999-10-12
<150> 5086/99
<151> 1999-06-18
<160> 8
<170> PatentIn Ver. 2\1
<210> 1
<211> 20
<212> PRT
<213> Gadus sp.
<220>
<221> MOD RES
<222> (6)
<223> Q or E
<220>
<221> MOD RES
<222> (8)
<223> E or T
<220>
<221> MOD_RES
<222> (9)
<223> K or R
<400> 1
Ile Val Gly Gly Tyr Xaa Cys Xaa Xaa Has Ser Gln Ala His Gln Val
Ser Leu Asn Ser
             20
<210> 2
<211> 20
<212> PRT
<213> Bovine sp.
Ile Val Gly Gly Tyr Thr Cys Gly Ala Asn Thr Val Pro Tyr Gln Val
                                                             15
                                       10
Ser Leu Asn Ser
<210> 3
<211> 13
<212> PRT
<213> Gadus sp.
<220>
```

```
<221> MOD_RES
<222> (3)
 <223> R or S
<220>
<221> MOD_RES
<222> (7)
<223> S pr Q
<220>
<221> MOD RES
<222> (9)
<223> V of Q
<220>
<221> MOD RES
<222> (10) \
<223> I or V
<400> 3
Cys Gly Xaa Pro Ala Ile Xaa Pro Xaa Xaa Thr Gly Tyr
<210> 4
<211> 20
<212> PRT
<213> Gadus sp.
<220>
<221> MOD_RES
<222> (11) <223> S or T
<220>
<221> MOD RES
<222> (13)
<223> S, P or Y
<220>
<221> MOD RES
<222> (20)
<223> D or Q
<400> 4
Ile Val Asn Gly Glu Glu Ala Val Pro His Xaa Trp Xaa Trp Gln Val
                                            10
Ser Leu Gln Xaa
<210> 5
<211> 13
<212> PRT
<213> Bovine sp.
<400> 5
Cys Gly Val Pro Ala Ile Gln Pro Val Leu Ser Gly Leu
<210> 6
<211> 20
<212> PRT
```

Suls und

<213> Bovine sp.

```
<400>6
Ile Val Asn Gly Glu Glu Ala Val Pro Gly Ser Trp Pro Trp Gln Val
Ser Leu Gln Asp
<210> 7
<211> 4
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: synthetic peptide
<400> 7
Ala Ala Pro Phe
 1
<210> 8
<211> 225
<212> PRT
<213> Gadus sp
<220>
<221> MOD_RES
<222> (9)
<223> K or R
<220>
<221> MOD RES
<222> (24)
<223> Y or F
<220>
<221> MOD RES
<222> (32)
<223> K or E
<220>
<221> MOD_RES
<222> (33)
<223> D or Q
<220>
<221> MOD_RES
<222> (64)
<223> Y or F
<220>
<221> MOD_RES
<222> (71)
<223> I or unknown
<220>
<221> MOD RES
<222> (82)
<223> N or D
<220>
<221> MOD_RES
<222> (92)
<223> K or E
```

July Cont

```
<221
      MOD RES
<222>
      (12\overline{9})
<223> \A or D
<220>
<221> MOD RES
<222> (1\(\)3\(\)6)
<223> V br C
<220>
<221> MOD\RES
<222> (138))
<223> N or\S
<220>
<221> MOD RES
\langle 222 \rangle (20\overline{4})
<223> H or N
<220>
<221> MOD RES
<222> (212)
<223> M, V or C
<220>
<221> MOD RES
<222> (22\overline{4})
<223> N or S
<400> 8
Ile Val Gly Gly Tyr 🔃 Cys Thr Xaa His Ser Gln Ala His Gln Val
Ser Leu Asn Ser Gly Tyk His Xaa Cys Gly Gly Ser Leu Ile Asn Xaa
Xaa Trp Val Val Ser Ala Ala His Cys Tyr Lys Ser Val Leu Arg Val
Arg Leu Gly Glu His His Ild Arg Val Asn Glu Gly Thr Glu Gln Xaa 50 60
Ile Ser Ser Ser Ser Val Xaa Arg His Pro Asn Tyr Ser Ser Tyr Asn
                       70
Ile Xaa Asn Asp Ile Met Leu Ile Lys Leu Thr Xaa Pro Ala Thr Leu
                                         90
Asn Gln Tyr Val His Ala Val Ala 🎠eu Pro Thr Glu Cys Ala Ala Asp
             100
Ala Thr Met Cys Thr Val Ser Gly Tro Gly Asn Thr Met Ser Ser Val
Xaa Asp Gly Asp Lys Leu Gln Xaa Leu oldsymbol{\chi}aa Leu Pro Ile Leu Ser His
                                                140
                          135
    130
Ala Asp Cys Ala Asn Ser Tyr Gly Pro Gly Met Ile Thr Gln Ser Met
                                            155
Phe Cys Ala Gly Tyr Leu Glu Gly Gly Lys Asp Ser Cys Gln Gly Asp
                                       170
Ser Gly Gly Pro Val Val Cys Asn Gly Val Let Gln Gly Val Gly Val
```

July Const

190 185 180

Gly Tyr Gly Cys Ala Glu Arg Asp Xaa Pro Gly Val Tyr 200 205

Ala Lys Val Xae Val Leu Ser Gly Trp Val Arg Asp Thr Met Ala Xaa 210 220

Tyr 225